Virginia Wildlife

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Virginia Wildlife

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MILLS E. GODWIN, JR., GOVERNOR

Commission of Game and Inland Fisheries

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Editorial

INFLATION STRIKES AGAIN

Virginia Wildlife has become the latest but probably not the last victim of inflation. Production costs have risen more than 50% since our last price increase in July, 1970. It now costs the Game Commission $3.37 to prepare and mail 12 issues of the magazine. Even the cost of printing and postage alone are considerably above our current $2 subscription price.

Virginia Wildlife is the only 32 page monthly color magazine in the Southeast selling for less than $3 per year. Both the size and quality of the magazine have been increased during the last few years. There is an old saying, "We have been doing so much with so little for so long we can now do anything for nothing." Obviously such a policy has its limits.

On January 14 the Game Commission agreed to let us set the wheels in motion to increase subscription fees to $3 per year, $7.50 for 3 years. This will become effective July 1, 1977. There will be a special rate of $2 per year for groups of 10 or more. This is expected to increase revenues by 47%, still somewhat below printing and postage costs. For those who are interested, the vital statistics are as follows:

ANNUAL COSTS

Printing	$144,000
Production	13,780
Staff Time	16,000
Postage	21,780
Circulation Maintenance	6,577
	$202,137

SUBSCRIPTION REVENUES

Subscriptions	@ $2.00	8,302	$16,604
	@ 1.60	16,321	26,113
	@ 5.00/3 yrs.	8,148	40,740
			$83,457

Circulation — 55,000 Copies

Our goal is to continue to improve the quality of *Virginia Wildlife* rather than to downgrade the magazine in the name of economy. We hope you, our subscribers, feel the same. We will try our best to see that you get your money's worth. —HLG

Letters

DON'T TAKE YOUR BOAT TO PRINCE WILLIAM WITHOUT CHECKING!

In our March 1977 issue, we ran an article entitled "Opening Day at Prince William."

Since this story appeared we have been contacted by the Prince William State Forest Park because of erroneous information in the article.

According to National Park Service authorities, boating and swimming in the lakes and streams is permitted by the Superintendent for groups which meet specific requirements. Large groups occupying cabin camps, who have a Red Cross trained waterfront director to oversee their operations, can qualify with the permission of the Superintendent.

All other boating and swimming is prohibited. For further information on fishing, contact Park Headquarters, PO Box 208, Triangle, Virginia 22172. (703) 221-7181. Park Headquarters is located near I95 and State Route 619.

HOORAY FOR US

I would like to express my admiration for your choice of paintings for the front cover of the January 1977 edition of *Virginia Wildlife*.

I am sure many avid readers of this magazine have enjoyed the selection as much as I have.

Donald Shotton, M.D.
Lynchburg

IF IT WAS A SNAKE IT WOULD HAVE BIT ME. . .

Congratulations to *Virginia Wildlife* for continuing to publish articles on herpetology, such as "Snakes: Benign Villains," October, 1976, and previous articles on turtles, frogs and toads, and snakes. Our scaly and slimy friends are too often neglected in print.

However, I would like to make some points about the October article. The Canebrake Rattlesnake was omitted from list of Virginia's poisonous snakes. This snake occurs in southeastern Virginia, particularly in the Dismal Swamp region. While it and the Timber Rattler are subspecies of the same species, the Canebrake has a distinct range and appearance, and grows to a larger size.

Snake bite kits should be used (or not used) with caution. The "cut and suck" treatment has too often proved more dangerous than the bite, especially with Copperheads. If transportation is readily available, the best procedure is simply to get to medical help quickly and calmly. Also, fortunately, 95% of snake bites are not on the rump as was written. They most commonly occur on legs and hands.

You may wish to mention in *Virginia Wildlife* that anyone more than casually interested in reptiles and amphibians may wish to join the Virginia Herpetological Society. Write P. O. Box 1376, Leesburg, Virginia 22075.

Michael J. Cliffort
Amelia

APRIL FOOLS!

Regarding deer poachers, my wife and I were enroute to the West Virginia Mountain forest festival at Elkins, W. Va. On the other side of Wardensville, as we turned the curve onto the level — straight part of the road, I saw a spot light in the center of a mountain field. I instantly pulled my vehicle sharply to the right side of the road, and cut to the left side, throwing my headlights into the field revealing 2 supposedly males there with guns. By cutting the ignition a few seconds then turning it back on, I made my vehicle backfire and you should have seen those two come out of that field, jump the fence, start their car, and spin a take off in the direction I was going. By the time I got going, they left me on the coming upgrade and I never did see them again. If they had found out I was not a law man, I might have been in trouble.

Norman H. Wright
Falls Church

STARLINGS, SCHMARLINGS!

As a lover of American birds, especially the game and songbirds, it was dismaying to read in the Conservationgram of the January 1977 issue of *Virginia Wildlife* that a group calling itself the Society of Animal Rights was able to cause a limiting of reduction of the Starling population to a mere 10%, per year.

All farmers, sportsmen, and lovers of our native birds should do everything they can to have the Starling put in the category that he properly should be, and that is VERMIN.

Howard E. Korb
Victoria

Smith Mountain Lunar Festival

By Pete Elkins

"Big one," Barker Stein grunted from the rear of the boat. Even though it was a black, April night, I could still see the anguished bend in the white fiberglass casting rod.

The reel's drag stuttered, then revved up into the rachety purr of a big striped bass heading for deep water. I could even feel our boat move in response to the striper's powerful caudal.

Knowing that the fight would be a long one, I continued casting toward the ebonized shoreline, alert for the sudden thump of another striper taking the jig and pork rind trailer.

After several seasons' experience with Smith Mountain's incredible after-hours spring striper action, it was easy to predict the sex of the fish even while she was still bulling her way toward the center of the dark creek cove.

Generally, the bigger fish are females, and they invariably head for deep water in a powerful, drag-testing run as soon as they feel the pressure of the rod. Sometimes, the initial stages of these runs can only be described as spectacular. On occasion, female stripers in the 15-pound plus class, after striking in the ends or side pockets of coves, will thrash across the surface for 40 feet or more, leaving a foaming trail in the moonlight, then dive for the bottom, tearing great bursts of monofilament from the reel. The entire maneuver consumes less time than it takes to recount it. Accompanied by the darkness-magnified sounds of the explosive melee, the experience is like nothing else in fresh water.

Indeed, it's a safe bet that no other freshwater fishing action in the East can touch the quality and sheer excitement of Smith Mountain's spring striper lunar festival.

Although I'm far from being a qualified biologist, it seems apparent that the en masse migration of the stripers into the dark shallows is spawning motivated. Most of the smaller fish are males, ready to spawn, with whitish milt readily visible after landing. The females are heavy with roe, thousands of greenish, viable eggs.

Left: A night on Smith Mountain Lake during the spring striper run can beat the stuffings out of an ordinary daylight fishing trip. Below: Stripers seem to snap at anything when the sun goes down and the moon comes up.

Unfortunately, the spawning effort is a futile one since Smith Mountain seemingly lacks the essential conditions for successful striped bass reproduction.

Striped bass are "free spawners," that is, the eggs are expelled into open water. Upon contact with the water, the eggs harden, becoming semi-bouyant. In order to hatch, the eggs must remain in suspension for a period of 30 to 72 hours, dependent upon water temperature. In a relatively currentless environment like Smith Mountain, the eggs simply sink to the bottom where they perish. Successful natural reproduction demands either a long stretch or river with fast current like the Roanoke and Dan, or a shorter stretch of river with a slower current. However, that's a bit simplistic since other variables also play a role in the process. For example, striper eggs are highly fragile. Thus, a too swift current or contact with rocks could fatally damage an egg.

If the stripers cannot spawn in Smith Mountain, then from whence the countless fish swimming in the nocturnal shallows from March to May?

Each time a fanatic striper angler hooks a rod-punishing striped bass in Smith Mountain, he should utter silent thanks to individuals like Bill Neal and Larry Hart of Virginia's Commission of Game and Inland Fisheries. These individuals and others like them, make Smith Mountain's striper program what it now is.

If you want to do more than pay token homage to the biologists' efforts, gently release most of your stripers for another encounter in the future.

The lunar madness at Smith Mountain is only the latest chapter in a continuing volume of good news for freshwater striped bass fans. However, the night action is going to be a tough act to follow.

Although some lures seem to outproduce others, the prime ingredient for success is a lure that will swim several feet below the surface on a slow retrieve and present a relatively large silhouette for nearby stripers.

Occasionally, a striper will attack as soon as the lure touches the shoreline's edge in less than a foot of water. But most strikes come a bit farther out, approximately 5 to 15 feet out from the shoreline. In the case of a long, sloping point, nocturnal strikes may occur much farther out, but the water where the strikes come will usually be less than 15 feet deep.

A proven method of presentation simply calls for a cast into the shoreline, followed by a slow, steady retrieve back to the boat. On nights when the stripers follow the lure well away from the shore before striking, it pays to continue the slow retrieve all the way to the boat. On active nights when the stripers are mauling lures within a yard or two of the shore, most anglers hurriedly retrieve for another cast as soon as the lure passes through the strike zone.

Productive lures include bucktail jigs, either white or yellow, in the 3/8- to 3/4-ounce bracket. Some lunar anglers prefer jigs with fiber weed guards. Weed guards are a definite plus when a jig sails into a tree rather than the water (on really dark nights, it's difficult to tell one from the other), but, at times, the weedless jigs are also fishless. This is apt to occur when the stripers are only nipping at the lure.

Bassbuster's "Striper Buster," a jig designed expressly for freshwater stripers, is extremely effective for Smith Mountain's night-prowling fish. This jig, adorned with an Uncle Josh "Striper Strip" or "Striper Split-Tail" pork rind is deadly. The pork rind adds both bouyancy and fish appeal, making an ultra-slow retrieve most productive.

Some fishermen prefer to offer treble-hooked plugs to the stripers. Large Rebel plugs, Hellbenders, Spots, and other shad-imitating lures are effective. However, these plugs, although effective, are hazardous to both fish and fisherman.

Releasing a plug-hooked striper is a tricky prospect by day. At night, it becomes dangerous. The chances for injury to either fish or fisherman are too great in comparison to the ease and effectiveness of single hook jigs.

During the lunar festival, releasing stripers is more than just a sportsmanlike gesture. The stripers are so easy to hook and land (so long as the angler uses good equipment properly and cooly), that releasing most of the hooked fish is sound conservation. Even though the legal limit is four stripers per angler, no one makes an angler keep that many. If every fisherman in every boat on a prime spring evening at Smith Mountain kept a legal limit of stripers, the carnage would be frightening. Keep only what you can in good conscience utilize.

Despite their great strength, striped bass are very vulnerable to fatal shock during the landing process. Since a typical striper usually fights until exhaustion, a protracted landing process is usually fatal. Nets and gaffs are often death sentences to otherwise releasable stripers.

Experienced striper anglers take a page from the trout fishing book, releasing the fish by grasping the jig while the striper is still in the water. A quick twist of the hook by hand or pliers usually frees the striper for another fight on a future evening. If necessary, a striper can be held by the thumb grip on a lower jaw, used on a largemouth bass, while the single hook is removed.

This thumb grip will not immobilize a striper as it will a largemouth, but it will suffice for an already fatigued fish.

Smith Mountain's lunar festival normally peaks during April, but scattered action often begins as early as late February, and might continue through the middle of May. Stripers are also vulnerable to night angling throughout the summer, but the action isn't as consistently exciting as it is during the lunar festival period.

Proven areas for the lunar festival action are well marked by a profusion of navigation lights from other boats. However, the night scenario is still a new one with much experimentation and exploration yet undone.

On those few occasions when striper anglers have managed to tear themselves away from proven areas to explore virgin coves or points, they usually find stripers. No one really knows how widely distributed the stripers are, but there's no better way to find out than by casting a jig into an isolated cove well away from the crowd of regulars.

One tip-off to the presence of stripers is the rippling swirl of gizzard shad in moon-shadowed coves. Angling partners and I have enjoyed excellent striper action where shad are heavily concentrated throughout a cove.

Generalizations about fishing are always risky; yet, it seems that if shad are present, stripers are too. Stripers may be there even if the shad are not, but we have never observed or heard surfacing shad without catching stripers in the same area.

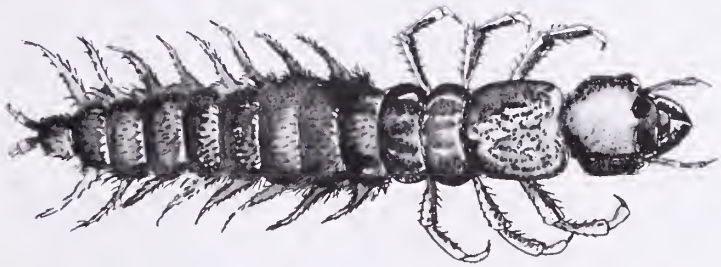
One final word of advice about the lunar festival--on certain nights during April and May, there are more boats on Smith Mountain than during a sunny, summer Saturday. Under these conditions, navigation can be tricky. Several near collisions have occurred. A depthfinder is an invaluable navigation aid, particularly on moonless nights. On moon-drenched evenings, a boater unfamiliar with the lake or without a depthfinder is still running a risk because of invisible shoals and other shallow areas.

On moonless, rainy nights, everything is hazardous. Run at reduced speed at all times. Wear a life vest. Display required navigation lights. At times, particularly after a day or so of heavy rain or winds, the surface is littered with debris, including large logs. some semi-submerged, which could easily "hole" a fast moving fiberglass boat.

Despite the demand for increased caution, Smith Mountain's nocturnal shorelines offer a brand of striped bass fishing that may outclass any other anywhere in North America. If you're looking for big, strong fish in shallow water, Smith Mountain's annual lunar festival deserves your attention. Fish hogs and careless boaters are cordially invited to stay at home.

Fishing With Hellgrammites

By GERALD A. ALMY



They are ugly, tough, cantankerous, and pack a whale of a painful bite in their protruding pincers which they wave about menacingly like some fearsome daggers. But hellgrammites are also one fantastic fishing bait. Though most commonly used for tempting smallmouth bass, the gruesome critters are also excellent baits for trout, rockbass, bluegills, catfish, yellow perch, and largemouths.

Hellgrammites are the larvae of the Dobson fly (Corydalis cornuta) which thrives beneath rocks in riffly sections of freeflowing streams. They boast three pair of legs, measure from one to four inches, and possess two powerful mandibles which have caused more than a few unprintable expletives to flow from the mouths of otherwise sober, clean-spoken anglers. These pincers are fully capable of drawing blood if the hellgrammite gets a firm grip on you. If handled properly, however, there is no need for the insects to treat you so inhospitably.

The correct way to handle hellgrammites is to grasp them firmly behind the head with a thumb and forefinger around the ¼-inch collar with which the insects are equipped. In this position it's impossible for them to reach you with their pincers.

But before you can hold them you have to catch them. This isn't too hard, for hellgrammites abound in virtually every shallow rocky river flowing through the Old Dominion. Two methods of capturing the larvae work well. The first requires two people. One holds a standard minnow seine stretched out in a riffle, with the handles planted firmly on the river bottom. Meanwhile, a second person starts about 10 feet above the net and kicks, lifts, and pries rocks loose from the floor of the stream where the hellgrammites live on the bottom of the rocks.

This second person must be sure to stir up the rocks well and overturn them completely, so that the larvae will be jolted loose and float down into the extended seine. Here they

can be easily plucked loose and placed in a bait container.

A second method, especially helpful if you are fishing alone, is to use a fine-meshed landing net. Hold the net in one hand below a likely rock in a stream riffle and lift the rock with the other hand, or use a stick to pry it up. The hellgrammites could float through the mesh of the net, but usually they will cling to the material where they are easily captured. If you want to be positive none float through, replace the mesh with a finer material — perhaps an old discarded minnow seine.

In addition to hellgrammites, these methods will occasionally yield other fish-luring tidbits such as mad-toms, crayfish, and minnows. All are fine bass and panfish baits and should be added to the larder.

Though hellgrammites are fairly evenly distributed among riffles in streams, some areas will harbor more than others. This is usually due to pressure from other anglers who got there before you. Riffles near roads are thus poor choices for loading a baitbox rapidly.

Some Shenandoah River smallmouths taken on hellgrammites, including 18 incher. (Fish were released after taking photos.)

Hellgrammites are hardy creatures, and only require minimal care to keep them lively. Any container will do to store them, from Styrofoam cooler to coffee can. Just put an inch or so of water in the bottom and add enough leaves, moss, or sticks to come above the waterline. Such a dark, cool, moist setup will keep the bait perky for days — even weeks if you refrigerate them between trips.

Best hooks for hellgrammites are fine wire No. 4's and No 6's. The point should be slipped beneath the collar of the insect and out the other side, being careful not to penetrate the body. Hooked this way, the hellgrammite won't come off on the cast and will remain lively surprisingly long.

There are two schools of thought on the best way to fish hellgrammites. One theory holds that they should be fished right on the bottom, with perhaps a tiny split shot pinched a foot or two above the bait. The other approach requires the use of a small bobber to keep the bait just off the bottom of the stream.

The first method (without the float) is sometimes the most effective way to fish these baits early in the season when streams are flowing high and fast, and fish are lying tight on the bottom. Normally, however, it's best to utilize a very small bobber to hold the bait near, but not actually on, the bottom of the river. This keeps the hellgrammites from crawling beneath rocks and into crevices where they hold tenaciously, hiding from game fish.

When a fish bites, it's wise to give him 5-10 seconds to get the bait fully in his mouth. Striking immediately usually just pulls the mite from the fish's mouth, where he had it held gingerly between his lips. Cast up and across and allow your bait to drift naturally with the current. If any trout, panfish, or bass is in the vicinity, he'll belt that hellgrammite with abandon.

SUMMER AT THE MOUNTAIN LAKE BIOLOGICAL STATION

Clematis addisonii, *in the Buttercup family, an unusual clematis found on limestone slopes.*

Above: Setting up plant demonstrations in the laboratory for Open House. Right: A red eft, the terrestrial stage of the red-spotted newt, Diemictylus viridescens. *(Photo by S. Brown).*

By ELIZABETH MURRAY

Last year the Mountain Lake Biological Station had a good summer. Classes were full, most of the students were hardworking and enthusiastic and there was a good deal of interesting research going on. The weather was kind— that is, it did not rain for three weeks on end as it did one summer, neither was it unbearably dry once the initial spring drought had broken.

The Station is part of the University of Virginia and is open 10 weeks each summer. The session is divided into two terms, usually with four courses each term. During the first term last year Dr. Jopson from Bridgewater College taught a course on Herpetology. Contrary to popular opinion, this class does not spend all of its time "messing around with poisonous snakes!" Rather few snakes of any kind were seen, and only one was poisonous. However, in addition to finding snakes, the class collected a great many frogs and salamanders of the area, some turtles, and a few lizards.

Dr. Keener, from Pennsylvania State University, took his Plant Taxonomy class on two all-day field trips each week. We travelled through southwest Virginia and parts of West Virginia collecting and keying out flowering plants. The habitats we visited varied from the hot, steep shale barrens of Ironto and Slaty Mountain (shale barren flora is a specialty of Dr. Keener's) to the cool, deep forests of Peters Mountain and the high circular ridge which surrounds Burkes Garden.

Every student in the Animal Behavior class was required to do an independent field project on an animal of his or her choice. Several people elected to look at the behavior of birds which were nesting on or near the station grounds; phoebes, cowbirds, robins, towhees, cedar waxwings. Some watched insects, aquatic ones such as water striders and water boatmen, or terrestrial ones such as ants and dragonflies. Three students chose amphibians, while one girl studied foraging behavior in chipmunks. Another investigated the way in which funnel-weaving spiders discriminate between different kinds of prey. She used an electrical device for producing vibrations on the web. The spiders responded to different frequencies and intensities of vibrations, and these responses may help to explain how the spiders distinguish between the various sorts of insects which land on their web. One project dealt with digging behavior in crayfish and another with the tendency of millipedes to aggregate, or crowd together. The students presented papers on their projects at the end of the course, and their written accounts were collected together in the same way as the proceedings of a regular scientific symposium. Dr. Hausfater, of UVA, who taught the class, felt that this approach provided a good opportunity to learn both the importance of careful field observations and how to handle such observations once they have been made.

The Plant Taxonomy Class, on Eggleston Cliffs, exploring the type locality of a rare member of the Staff-tree family, Pachystima canbyi.

Rhododendron calendulaceum, *the flame azalea, common all through the woods round the Station (Photo by J. J. Murray). Right: Young broad-winged hawks in their nest (Photo by D. W. Johnston).*

Dr. Simmons, from V.P.I., gave his Aquatic Ecology students a wet but fascinating introduction to freshwater environments, with emphasis on evaluation of water quality. They looked at the properties of a number of rivers and lakes, using counts of various aquatic insects as indicators of pollution. They made diurnal studies of our own station lake, and Mountain Lake, taking samples over 24-hour periods at different depths and comparing them for oxygen content, temperatures, and plant and animal life. By the end of the course the students were familiar with much of the aduatic ecologist's basic equipment, various methods of netting and boating, and perhaps one might also add, methods of drying clothes!

The summer session at Mountain Lake provides an almost unique opportunity for single-minded study. Students take only one course at a time and so they are involved with just that subject, and the professor in charge, all day long. However, it is not all work at the Station. Since students, faculty, staff and families all

(Continued on page 16)

Bob Pratt

Bob Pratt is a native Virginian who has spent most of his life in the Washington area. He is a commercial artist and a volunteer naturalist for the Fairfax Park Authority. Mr. Pratt has been working on the portrayal of wildlife since 1965, striving to help link people with nature's stirring excitement. "Being solidly in my groove for as long as I can remember, the. . . art teachers I have had gave me patience and insight into the realm of the American artist with its demands and responsibility of producing good sound works of art." Bob Pratt can be contacted about his work at Route 2, Box 393-B, Accokeek, Maryland 20607. 301-292-4735.

Mother Nature's Greens

By JOHN E. TRAISTER

Above: Red Clover. Below: Outdoorsman gathering wild greens.

Below: Lamb's Quarter. Right: Wild Mustard Flowers.

About the first of March I always get the hankering for some fresh greens; although I know that the spinach, collard greens, and the like won't be up in my garden for at least another six weeks.

But it's a simple matter to bring home a mess of wild greens nine months out of the year. Even during the coldest winter months, I'm able to find water cress growing on clear surface springs near my home.

Of course, it's imperative to know what you're picking, as a few wild plants are known to cause ill effects and some deadly poisonous.

The young leaves of dandelion, yellow dock, red clover, and upland cress are some of the first to appear in early spring. You will be able to find them in places like flower beds, pastures, along roadsides, and other moist, open places.

The leaves of any of these plants may be cut up and served in a salad after soaking them in salted water for about 10 minutes. I prefer them cooked in a small amount of water (until tender) and then used like spinach; with a small amount of vinegar and a chopped hard boiled egg. Later on in the season when the older leaves become a little bitter, you might want to boil them in two changes of salted water.

Not too long after these greens appear, young shoots of the pokeweed will begin poking (if you'll pardon the pun) up from the ground. The young shoots in early spring may be cooked in two changes of salted water and then served with vinegar and melted butter, but don't cut the shoots too near the root as the root is known to be poisonous.

There are different opinions about the berries of the pokeweed, but since there are so many berries known not to be poisonous, why bother with the questionable berries of the pokeweed?

Other early greens that may be prepared similarly to these include: wild lettuce, wild cress and stinging nettle. When gathering the latter two species, however, take cautions. The presence of stinging bristles on the nettle leaves makes it necessary to wear gloves while harvesting it. When the plant is boiled the entire plant quickly loses its stinging properties and the result is a plant with a delicate flavor that is good by itself.

The wild cress may have a very bitter flavor requiring the boiling of the leaves in several changes of salted water before they are then served like spinach or any other garden greens. I prefer wild cress served together with chopped onions and bacon in an omelet.

Chances are you have pulled up piles of Purselane without realizing what a delicious potherb it is. If you just nip off the tender leafy tips of a few plants they will make an welcome addition to any green salad; and by leaving the plant, other leaves will rapidly sprout again, providing you with fresh greens from late June to early frost. For a change of pace, drop the leaves in boiling salted water for about five minutes before serving them with melted butter or an oil and vinegar dressing. It is also a good vegetable to add to soups or stews.

Conservationgram

POLLUTION FINE CUT. According to a report from the National Wildlife Federation, Judge Robert Merhige declared the Allied Chemical Corporation "good boys in my book" while reducing the company's Kepone pollution fine from 13.2 million to 5 million dollars. The decision came after the company's announcement that Allied Chemical would donate 8 million dollars to the Virginia Environmental Endowment Fund. Even with the reduction, the fine is the largest criminal penalty ever imposed in a federal pollution case. According to Allied spokesmen, none of the 8 million dollar donation will be used to offset the Kepone damage for which Allied could be held liable.

SNAIL DARTER WINS! A U.S. Court of Appeals in Cincinnati has ruled in favor of the snail darter, halting construction of the 116 million dollar Tellico Dam project on the Little Tennessee River in Tennessee. The snail darter, a tiny three-inch member of the perch family, was added to the endangered species list in 1975. Under Section 7 of the Endangered Species Act, no federal agency can fund or carry out a project which threatens the "critical habitat" of an endangered species. The snail darter has been found only along the 17 mile segment of the river which would be made into a reservoir under the dam project. The TVA project is already 90 percent complete and TVA officials reportedly have said they will appeal the case to the Supreme Court. Unless the high court overrules the appellate court decision or Congress acts to exempt the project from compliance with the Act or removes the darter from the list, the injunction will remain in effect.

APPALACHAIN TRAIL CONFERENCE IN MAY. Hikers representing more than 60 member clubs of the Appalachain Trail Conference, together with groups from areas outside the 13-state Appalachain Trail region will meet during the Memorial Day weekend May 27-30 at Shepherdstown, West Virginia, in what is expected to be the largest such conference in the 50-year history of the Appalachain Trail. Between 1200 and 1500 hikers are expected to attend. This will be the first ATC conference to focus on the shared experience and problems of the clubs and individuals who, through voluntary cooperative effort, have built and now maintain the 2000-mile Appalachain Trail and similar newer trails in the U.S. and Canada. The conference is not limited to ATC members but is open to anyone interested in the Appalachain Trail and its sister trails in the U.S. and Canada. Information is available from the Potomac Appalachain Trail Club, host club for the conference. Write ATC Reservations, Potomac Appalachain Trail Club, 1718 N Street, N.W, Washington, D.C. 20036.

NEW PROPOSED INJURIOUS WILDLIFE REGULATIONS. The Interior Department's U.S. Fish and Wildlife Service published proposed wildlife importation regulations in the Federal Register on March 7 which would streamline and clarify the present regulations governing injurious wildlife. The proposal would add a number of forms of fish and wildlife to the present list of injurious wildlife that may be imported only under permit. Public comments are invited through May 6, 1977. Comments should be addressed to the Director, U.S. Fish and Wildlife Service, Washington, D.C.

Free Calculator

A sliding calculator that gives instant readings of the wind chill temperature both in Fahrenheit and celsius (centigrade) is available free from Holubar Mountaineering Ltd.

The calculator, which fits easily into a shirt pocket, is a valuable reference tool for anyone who enjoys outdoor activity.

The calculators are available free by sending a stamped, self-addressed envelope to Holubar Mountaineering Ltd., Department C, P. O. Box 7, Boulder, Colorado 80306.

TIE A KNOT

For years I have avoided the use of snaps and swivels except when fishing spoons, spinners and other lures that cause line twist. They can hamper the delicate action of other lures.

Even before the days of monofilament I generally tied a bowline loop in the end of my line, making the loop large enough to slip over the largest lure in my box. Fastening a lure is as simple as running the compressed loop through the eye of the lure, slipping the lure through the loop, and then pulling it up snug. Removing the lure is just not easy. Changing lures is possibly a bit slower than when a snap is used but the loss of time is minimal.

I learned to tie the bowline back in Boy Scout days, and my faith in it has been reaffirmed many times.

TACKLE BOX TIPS

One needn't be a pipe smoker to appreciate pipe cleaners. They are among the most useful items a fisherman can own.

Twisted around sections of a jointed fishing rod, they hold the units firmly and safely in place on trips to and from the fishing hole or anchor them to a hiking stick on a back-pack.

A pipe cleaner is ideal and ever-lasting for hanging reels from nails or hooks in a storage shed, allowing it to dry and keeping it ready, yet out of the way, for the next trip. In a pinch, a pipe cleaner can substitute for a broken rod guide, or it can anchor the feet of a spinning reel to a rod seat.

Courtesy UMCO Corp.

The Secret Pond

By BOB BELTON

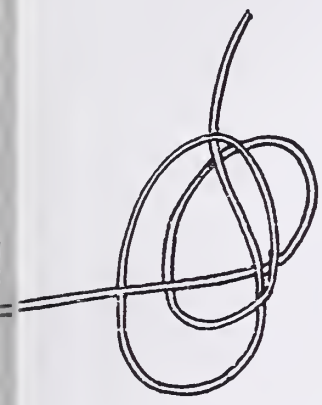
Some fishing secrets are meant to be kept; others are meant to be shared. Sharing sometimes makes them even more valuable and increases the amount of enjoyment they provide. A friend of mine, Gene Bishop, shared such a secret with me on a warm June evening — a hidden farm pond. Not just a farm pond but a super farm pond, full of bass and bluegills and a sight to behold. Imagine, in your mind's eye, the perfect pond. Now you have seen what I saw — loden green water, rippled by an occasional soft breeze; willows and shrubs overhanging the bank here and there; partially submerged logs or tree tops; submerged stumps; drop offs, shallows and mini-coves; all in the space of about three acres.

Okay, enough description — what about fish? Lunkers? Maybe, but not so far. Our two and a half hours' effort, on an evening when *Sports Afield's* "Guide to Best Fishing Days" predicted poor fishing, netted about 15 bass, most of them surprisingly small. The largest weighed a little over a pound. Well, that's nothing to get excited about, you say. Maybe not — definitions are a very personal sort of thing; but the potential of the pond, not to mention its rare gem quality, make it worthy of many more opportunities to establish itself as more than a beauty contest winner.

The first bass yielded to my Rebel floater as I stood on shore waiting for Gene to change from business suit to fishing duds.

As luck would have it, this bass was the biggest we caught. Normally, says my companion, the catch averages a pound or over and a four-pounder was landed last season from this little-fished pond. However, one cast into the shallows near shore yielded a surprise — I had retrieved the lure only about four feet when it was jolted by a solid strike. Excitement began to mount, as I thought I'd latched onto something special. The fish seemed to fight wierdly, though, as if it couldn't decide which way to go. Suddenly, my friend yelled: "Bob, you've got two

Kaleidoscope



The bowline is simple to tie. Make a simple loop in your line, leaving plenty of line between the loop and the end of the line so you will have room for a long loop. Next lay a second loop on top of the first one, bringing the tip of your line back under the main stem and then back between the loops, extending the tip slightly beyond the outer edge of the loops. Now, holding the loops and tip firmly in one hand, pull the second loop through the first one. Pull it tightly. Once snug the bowline will not slip.

Monofilament has a reputation for cutting itself, and consequently no knot is as strong as the line. The angler should make allowance for this in selecting the strength of his line. He should also set the drag on his reel to the strength of the knot instead of to the strength of the line. By using these simple precautions I have experienced no trouble with the bowline.

Bob Gooch

fish on." He was right. Hitting simultaneously, each had been snared by a set of the Rebel's treble hooks. Together, they were a nice catch but separately only one was a "keeper." Still, that is an experience I'll remember for awhile. (Another friend and occasional fishing partner, Charlottesville Insurance agent Frank Schultz, had the same experience a week later, catching two 1½ pounders on Charlottesville's Ragged Mountain Reservoir.)

Gene and I threw mostly surface fare into our short farm pond contest, including some fly rod poppers which enticed numerous small and medium sized bluegills, but we felt we'd only scratched the surface when we had to depart. Next time we'll have a better assortment of lures and, hopefully, more time to devote in pursuit of the secrets of bass and bluegills in a shared-secret pond.

Appearing on WCYB-TV in Bristol, Virginia, Game Commission member Jim Bowie (center) discusses the Game Commission's work with ruffed grouse with Ruffed Grouse Society President, William H. Treadwell. Mr. Pat Mead, seated on right is the host of the program.

(Bio Station continued from page 10)

live in the station accomodations and eat in a communual dining-room, we all see a lot of each other, and recreational facilities are shared by everyone. Volleyball, horseshoes, ping-pong and badminton are popular sports, there are swimming in, and boating on both our own small modern lake and the big old one, and the woods around are full of good trails and places to explore. A local beauty spot is a spectacular waterfall called the Cascades on Little Stony Creek. The Appalachian Trail crosses the Salt Sulphur Turnpike about four miles north of the Station between Bailey's Gap and Wind Rock on Potts Mountain. This road goes up the famous Minie Ball Hill where Union forces, fleeing into West Virginia, were forced to abandon much of their ammunition.

Mountain Lake itself is one of only two large, natural lakes in the state. It is almost a mile long, about a fifth of a mile wide and 110 feet deep in places. At the south end rises the highest point of the area, Bald Knob, 4363 feet. At the north end of the lake there are large boulders of Clinch sandstone resting on the underlying formation of Martinsburg shale.

The Mountain Lake Biological Station is situated a mile beyond the north end of the lake. The laboratory provides facilities for 15 students per class and up to a dozen independent investigators, and the accomodations at the Station provide room for about a hundred people. Second term activities last year included courses on Terrestrial Ecology, Pteridology (ferns), Ecological Genetics and Mammalogy. There was research in progress into the parasitic relationships of plants belonging to the family Scrophulariaceae, the development of lens proteins in salamanders, reproductive physiology of newts, crustacean systematics, pollination biology and oxygen production in Mountain Lake.

This year another full and interesting session is planned at the Station. In addition to the regular four 6-hour courses given during the first term (this year on Ornithology, Algae, Field Biology of Green Plants and Plant Ecology), there is a new 3-hour course which will consist mostly of independent study and research and is designed for advanced students. It is going to be directed by Dr. William Odum, an ecologist from the Environmental Science Department of UVA, and is called Ecosystem Analysis. During the second term there will be three regular 6-hour courses offered, Population Ecology, the Biology of Insects and Invertebrate Ecology, and two more advanced 3-hour courses on the Reproductive Behavior of Animals and the Reproductive Biology of Plants. There will also be a short four-week course on Mosses given by Dr. Susan Moyle from Centre College of Kentucky. The summer session at the Station runs this year from June 12th to August 20th. Queries about the Station may be addressed to Mrs. Ladd at the Mountain Lake Office in the Biology Department of the University of Virginia.

The Biological Station was founded in 1930 by Dr. Ivey Lewis and Dr. Bruce Reynolds from the University of Virginia, and summer sessions have been conducted there every year since then. The aim behind the foundation is the provision of an inland field station where there are good facilities for summer courses and research involving the surrounding fauna and flora.

(The Way It Was continued from page 33)

for me was to go back to the cottage, drink a cup of coffee, and steady my nerves.

Walking around a bit, I ran into the fortunate fisherman who offered his lure to me, apologizing for having only two hooks left on the treble hook. It was an act of pure generosity and I still thank him. Bustling back from the cottage, rod in hand, and the precious lure tied with a uniknot, I began casting to the same pool I watched earlier. In 30 minutes I had my limit---browns breaking water three or four times while being played on 2-pound line. For a time, I was transported into the fishing books which spoke of pools deep and blue.

I fished near a whole family all perched on a rock tossing worms and brutally yanking trout from the pool. As I was leaving, I heard one of the youngest ask his father why the trout I caught coursed and jumped and why their's didn't. His father didn't answer; he seemed to be involved with the gobs of worms he was building on his hook.

Making even the smallest judgement about the fishing methods of others is not something I like to do.

I share a joke with a friend about "breaking the code," which refers to the use of different fishing methods -- flys, hardware, or bait. The reasons for fishing dictate the individual style of the fisherman. Hopefully, the sporting way is a major issue. To work trout on too-heavy equipment is to deny the sport. Equipment that is too light means the fish is coaxed to death.

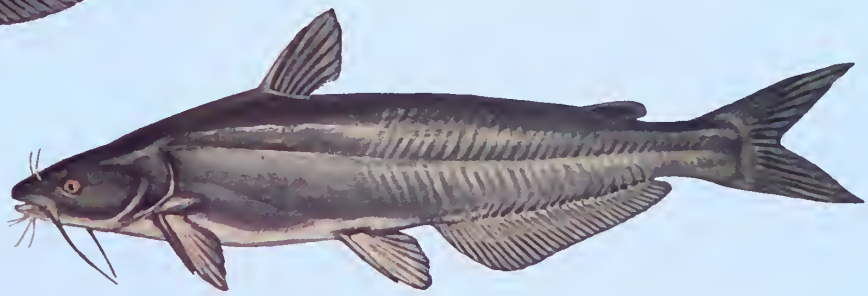
For a bait fisherman, a pair of waterproofed boots thrashing through the water will put down a trout. On the other hand, nothing makes a trout more wary than disturbing the water with bait and sinker, making a rise to a fly almost impossible.

Picking up the challenge of these conflicting points of view, the Virginia Commission of Game and Inland Fisheries has recently enacted a special provision applicable to the Smith River.

Below the bridge on route No. 674, beginning on the far bank of Towne Creek and running three miles toward Bassett, one may use a single barbless hook on artificials only. Possession is one 12-inch or larger trout. Above Towne Creek, to Philpott Dam, any legal method applys with a daily creel of six trout. In effect, this provision provides fishermen with more options in choosing their water and style of fishing.

VIRGINIA'S FRESHWATER FISHES

CHANNEL CATFISH (fiddler, blue catfish, willow)



BLUE CATFISH
(great forktail cat, poisson bleu, chuckleheaded cat)

FLATHEAD CATFISH
(mud cat fish, yellow cat, shovel head cat)

AMERICAN SHAD
(white shad, roe shad, roe)

YELLOW PERCH
(raccoon perch, red-fin, lake perch, ring perch)

WALLEYE
(walleyed perch, pike-perch, jack salmon)

BLUEGILL
(bream, brim, blue sunfish, perch)
ROCK BASS (red-
WARMOUTH
(goggle-eye, grass perch, open mouth, stumpknocker)
PUMPKINSEED (round sunfish, common sunfish, brim)
REDEAR SUNFISH
(shellcracker, brim, strawberry bream)
FLIER
(round sunfish, flier bream, brim)
GREEN SUNFISH
(brim, green perch)
REDBREAST SUNFISH
(robin, long-eared sunfish, yellow belly, brim)

nfish, goggle-eye)

WHITE CRAPPIE
(silver, speckled perch, calico perch)

BLACK CRAPPIE
(silver, speckled perch, calico bass)

KENTUCKY SPOTTED BASS
(Kentucky bass, spotted bass)

STRIPED BASS (rockfish, rock, striper)

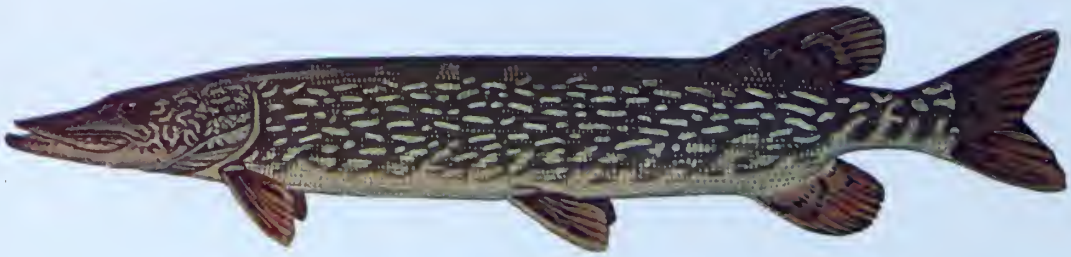
SMALLMOUTH BASS (red-eye, trout, green trout)

WHITE BASS (silver bass, striper, streaker)

LARGEMOUTH BASS (chub, green trout, lake bass)

WHITE PERCH
(silver perch, black perch)

CHAIN PICKEREL (jack, pike, black pike)



NORTHERN PIKE (pike)

MUSKELLUNGE (muskey)

BROWN TROUT
(German brown, Lock Levin)

RAINBOW TROUT
(redside, California trout, steelhead)

BROOK TROUT
(spockled trout, charr, mountain trout, native trout)

CHANNEL CATFISH *(Ictalurus punctatus)* DESCRIPTION: In overall growing ability this is the smaller of the catfish in Virginia. Usually bluish gray going sometimes to yellowish to white shading, the fish has a deeply forked tail and spotted sides. Old fish which have lost their spots can be confused with the blue cat, but the rounded anal fin containing 25 to 30 rays shows it's a channel cat. LIFE HISTORY: A stream fish, the channel cat adapts well to man-made lakes and reservoirs. Hollow logs, overhanging underwater edges or holes under mud banks are typical nesting places. Females usually lay about 10,000 eggs each. The male protects the eggs and young fry from intruders, including the female. ANGLING VALUE: A good fighter, this fish is also good on the table when taken from clean water. A daytime feeder, it can be easily caught on worms, cut bait, liver or "stink" baits. Channel can go to 50 pounds but the Virginia record is lower at 30 pounds, 3 ounces.

FLATHEAD CATFISH *(Pylodictis olivaris)* DESCRIPTION: If you catch a yellow-mottled-with-brown catfish with a square tail and very flat head it is bound to be a flathead catfish. Other characteristics include a large adipose fin, nearly as long as the head and a strongly projecting lower jaw. LIFE HISTORY: Spawning habits are assumed to be similar to that of the channel. A large fish, the flathead eats other fish and aquatic animals. Fish weighing over 50 pounds are not uncommon and the flathead may reach over 100 pounds in some areas. The Virginia record is currently 57 pounds. ANGLING VALUE: Caught on trotlines more often than a rod and reel, flatheads are considered by many to be some of the finest table fare available. Live fish seem to one of the best baits for the flathead.

BLUE CATFISH *(Ictalurus furcatus)* DESCRIPTION: Much like the channel cat, the blue has a more pronounced hump in its back and has smaller eyes. Main difference is number of rays (30 to 36) in its straight-edged anal fin. LIFE HISTORY: Blues use the same kind of sheltered areas to spawn as do the channel cats and have adapted well to man-made lakes. In flowing water he will feed in the rapids dining on fish and crayfish. ANGLING VALUE: This is the largest catfish and often goes well over 100 pounds. A strong fighter, blues are a sucker for natural bait offered both from rod and reel and trotline. In many areas where this fish is found the favorite angling spot is in the swift tailwater areas below power dams.

YELLOW PERCH *(Perca Flavescens)* DESCRIPTION: The "raccoon perch" is easily identified by its color pattern and is not easily mistaken for other fish. Note the separate dorsal fin with strong spines and the profile of the head which is concave above the eye, making a humped outline before the beginning of the dorsal fin. LIFE HISTORY: Prefers quiet streams and ponds as well as rivers where there is no strong current. ANGLING VALUE: A native to Virginia and the eastern portion of the continent, the yellow perch provides considerable angling pleasure. Although the Virginia citation size is only 1 pound, yellow perch sometimes reach 4 pounds in weight. Dining mostly on aquatic animals, the yellow perch is readily caught on natural bait.

AMERICAN SHAD *(Alosa sapidissima)* DESCRIPTION: A bluish or bluish-green above with silver sides and deeply notched tail. Upper jaw has a notch into which the tip of the lower jaw fits. LIFE HISTORY: Shad enter Virginia's inland waters from the sea in the spring on their spawning runs up the major rivers and their tributaries. ANGLING VALUE: Of considerable commercial fishing interest, shad provides good sport for anglers during their spring run. Small "dart" lures are used successfully by anglers. In many areas netting is also considered good sport. Shad roe is a delicacy and the fish themselves are commonly salted and used throughout the year.

BLUEGILL *(Lepomis macrochirus)* DESCRIPTION: The bluegill's coloration can vary greatly according to the water in which they are found. Adults are usually deep yellow to coppery red with green to purplish-brown vertical bars. The gill flap is broad and dark and a black spot is usually on the posterior bar of both dorsal and anal fins. LIFE HISTORY: A summer spawner, the bluegill usually begins when water temperature reaches 75 degrees F. Being gregarious spawners, you will often find a colony of nests in sand or gravel at 1 to 3 feet of water. The male will drive the female fish away after spawning and stand guard until a few days after hatching. Female bluegills can produce 40,000 or more eggs per season. ANGLING VALUE: A favorite in many waters, the bluegill is also an important forage fish for bass and catfish in farm ponds. For anglers, the bluegill will take a variety of poppers, wet and dry flies, spinners and most any natural bait.

REDEAR SUNFISH *(Leponis microlophus)* DESCRIPTION: Sometimes confused with the bluegill, the redear has red on the gill flap if it is a male fish, while the females have yellow. Also look for the very long pectoral fins. The prominent vertical banding is lacking on the redear and the body color tends to lighter. LIFE HISTORY: Spawning is much like the bluegill, however, the redear is not as prolific. It grows faster than the bluegill, but does not tend to overpopulate a body of water as readily. ANGLING VALUE: Natural baits are the key to catching the redear. Fish for redears in deeper water around logs and stumps. Adult redears prefer mollusks, such as snails, which they crack with their specialized pharyngeal teeth.

FLIER *(Centrarchus macropterus)* DESCRIPTION: The flier or round sunfish is the only species in this genus. A greenish coloration with broken lines of round dark spots and a dark streak below the eye identify the flier. ANGLING VALUE: Growing to 5 or 6 inches, the flier commonly inhabits lowland streams and ponds. The handsome little fish can give considerable sport to the angler whose line is baited with a cricket or a worm. Game for its size, the flier often takes to the air. This avidity doubtless is the reason for the name flier.

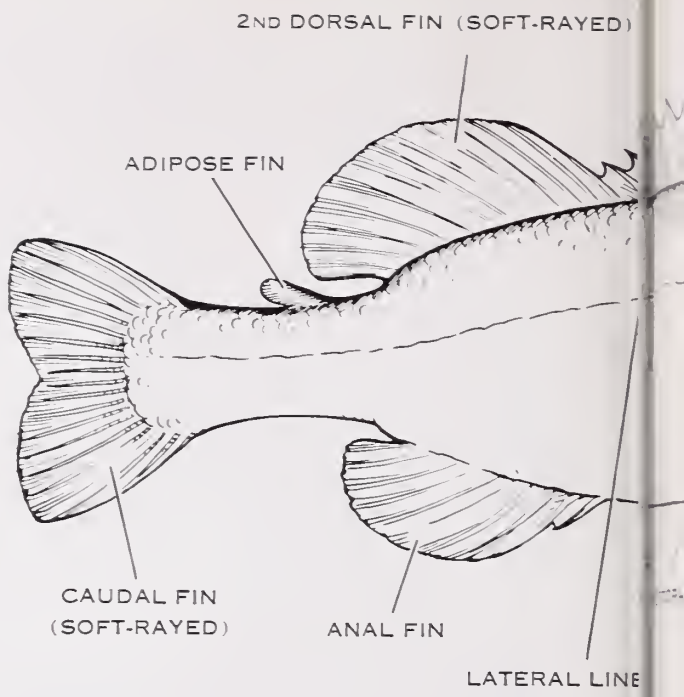
REDBREAST BREAM *(lepomis auritus)* DESCRIPTION: A colorful little sunfish which is olive above tending toward red orange on the sides and belly. Vertical fins are chiefly orange or yellowish. Has long opercular flap, longer than any other sunfish except the long-eared *(Lepomis megalotis)*. ANGLING VALUE: On many rivers the redbreast is often the prize when the angler is looking for a bass. On ultra-light tackle he can be a fun fish to catch. 6 to 8 inches is standard for these fish which make good table fare.

GREEN SUNFISH *(Lepomis cyanellus)* DESCRIPTION: The large bass-like mouth of the green sunfish is one of the best ways to identify this sunfish. Coloration is definitely greenish and there is a black spot on the gill cover. The fish also has faint vertical body bars, irregular emerald-blue cheek lines and yellowish fin margins. LIFE HISTORY: Like other sunfish, the green spawns throughout the summer and nests may be in colonies. Producing about 10,000 eggs, the female is driven from the nest which is usually a small depression near the shoreline. ANGLING VALUE: Although it likes clear water, the green sunfish can tolerate murky water, where it will readily come to a well-placed fly or a bright running spinner. Don't be afraid to use spoons or plugs for this sunfish, since its large mouth lets it snap up a variety of artificial baits.

PUMPKINSEED *(Eupomotis gibbosus)* DESCRIPTION: Coloration of this generally greenish-brown sunfish can vary from rather dull to conspicuous. Has a red spot on the gill and sometimes bright blue stripes on the cheek. A very deep bodied sunfish. ANGLING VALUE: Frequently in schools, the pumpkinseed inhabits the weedy parts of ponds and streams, feeding on crayfish, snails and insects. Never a large fish, with maximum growth to only about 8 inches, it takes a mess of these sunfish to make a meal.

ROCK BASS *(Ambloplites rupestris)* DESCRIPTION: This species and the very similar warmouth may cause anglers to count the anal spines to tell the difference. The rock bass has 5 or 6 spines. Coloration is usually olive brown with dark mottling. ANGLING VALUE: A robust wide-mouthed sunfish, rock bass are often found in association with smallmouth bass. A good bet for rock bass are topwater popping bugs, small spinners and wet and dry flies.

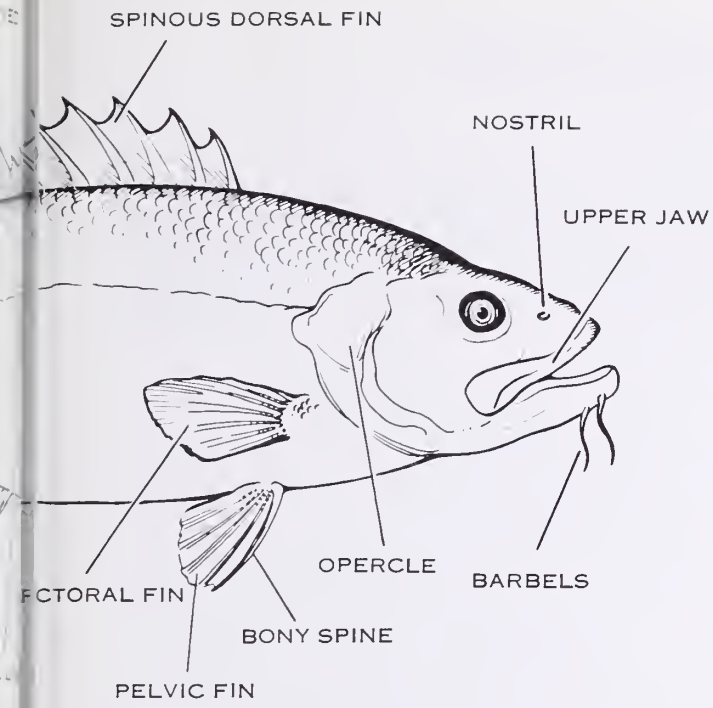
WARMOUTH *(Lepomis gulosus)* DESCRIPTION: The warmouth resembles the rock bass but if you count anal spines you will find only 3. The warmouth also has teeth on his tongue. LIFE HISTORY: The warmouth will nest in clearings in aquatic vegetation and will inhabit deep holes often in muddy water-weed beds, and areas around bridges. ANGLING VALUE: Generally small, the fish will hit miniature plugs as well as wet and dry flies. Since their prime food sources are insects and fish, the angler after warmouth might try small minnows.



This illustration and a portion of the fish art on pages 17, 18, 19, and 20 courtesy of the Oklahoma Department of Wildlife Conservation.

LARGEMOUTH BASS *(Micropterus salmoides)* DESCRIPTION: Not a true bass, this member of the sunfish family is not typical of its pansized sunfish cousins. Sometimes confused with the smallmouth bass, the upper jaw extends beyond the posterior edge of the eye socket in the largemouth. Its deeply notched dorsal fin will distinguish it from the spotted bass. LIFE HISTORY: Spawning activities begin as water temperatures reach 62 to 65 degrees F. Like the sunfishes, the largemouth scours out a nest and guards it until the eggs are hatched keeping away all intruders including the female. Largemouths thrive in a shallow, weedy habitat where food and cover are available. ANGLING VALUE: There has been a considerable increase in the popularity of the largemouth bass and a general mystique has grown up around this fish.

SPOTTED BASS *(Micropterus punctulatus)* DESCRIPTION: Often called the Kentucky bass, the spotted is much like the largemouth and has been called an "in-between" species. Its mouth, at least, is midway in between that of the largemouth and smallmouth. As its name implies, the spotted bass has definite spots along its sides beneath the lateral band. There are 12 rays in the soft dorsal fin and scales lap up onto the fin. LIFE HISTORY: Spawning is much like the largemouth, but the spotted chooses habitat somewhat between that of the large and smallmouth. Its eating habits, are more like the smallmouth. The spotted attains a maximum weight about 5 pounds, and citation size in Virginia is 3 pounds. ANGLING VALUE: Not overly abundant in Virginia, the best fishing season seems to be in the fall and the best bait is a crawfish fished on the bottom. Anglers find that spotted bass are usually caught in



HYPOTHETICAL FISH

deeper water than largemouth and catching one usually means more since the fish tend to school.

SMALLMOUTH BASS *(Micropterus dolomieu)* DESCRIPTION: The smallmouth is a creature of clear flowing streams and large clear lakes, not generally found in sluggish water or ponds which might harbor largemouth. Colored brownish-green with overlays of bronze vertical markings, it does not have the lateral band found on largemouth and spotted basses. It always has more rows of cheek scales (up to 17) than the largemouth, which has fewer than 12 rows. The dorsal fin is not notched as deeply as that of the largemouth. The end of the upper jawbone does not extend beyond a vertical dropped from the back of the eye. Smallmouth bass usually weigh 5 pounds or less. The Virginia record is 8 pounds. LIFE HISTORY: Maturing at about two years, the smallmouth spawns in the spring when the water temperatures reaches 60 to 70 degrees F. Nests are built on gravel bars with the male smallmouth driving ripe females to the nest. When the eggs are laid the male seeks out another female repeating the process two or three times. Each female lays from 2,000 to 7,000 eggs per pound of body weight. Almost no parental care is given the young after hatching. ANGLING VALUE: Rated tops by some anglers, it is often said that is the scrappiest of the basses. When hooked he will give the angler a jumping, tail-walking battle. These fish eat almost anything small enough for them to handle which makes minnows, hellgrammites, nightcrawlers and the like highly successful. Plastic worms and bottom bumping plugs take their share as do flies. Check water temperature when fishing for smallmouth-- they feed most actively at 65 to 79 degrees F.

BLACK CRAPPIE *(Pomoxis nigromaculatus)* DESCRIPTION: Identified by its longer dorsal fin with more dorsal spines than the white crappie. Color is greenish above to white below with black spots and blotches randomly scattered over the sides. LIFE HISTORY: Nests at greater depth than the white crappie, on sand or gravel in slow-moving water 6 to 12 feet deep when available. Spawning occurs after the water temperature reaches 55 to 65 degrees F. ANGLING VALUE: A schooling fish throughout life, the black crappie feeds on insects, crustaceans, and small fish. Lead head jigs are a favorite bait as are live minnows. Catching one over an underwater brush pile is usually the start of a good session of crappie fishing. Generally small, they can become sizable fish, the Virginia record is 4 pounds, 14 ounces.

WHITE CRAPPIE *(Pomoxis annularis)* DESCRIPTION: Has fewer dorsal spines and a shorter dorsal fin. Dorsal spines number 5 or 6. This fish is most often confused with the black crappie especially during spawning when both species exhibit sexual dimorphism. LIFE HISTORY: Similar to the black crappie but nesting in somewhat shallower water. A prolific fish, they can overpopulate farm ponds with a resulting population of stunted fish. ANGLING VALUE: Crappie have in some areas been noted to be cyclic in availability, but they tend to congregate at natural or man-made brush piles and offer fine fishing when you find a school. Although there often isn't much meat per fish, a stringerful can make fine eating.

WHITE BASS *(Morone chrysops)* DESCRIPTION: Along with the striper, the white bass is the other member of the true bass family in Virginia. Body color is light greenish above, silver sides and white below. LIFE HISTORY: Spawning at random over weeds debris or rocks, a female white bass will produce up to a million eggs. When tributary streams are available the white bass will choose an upstream spawning migration. In Virginia the Holston River is a preferred stream and anglers easily fill their stringers when the fish are running. ANGLING VALUE: Attacking spoons, spinners and jigs, the white bass provides considerable sport in the limited areas they inhabit in Virginia. Some white bass are found in the Clinch and Holston Rivers and in Claytor Lake and its tributary, New River.

STRIPED BASS *(Morone saxatilis)* DESCRIPTION: Only the white bass in Virginia resembles the striper. The striper's body coloration shades from dark olive above through silvery sides and a white belly. Prominent black spots form lines originating behind the head and extending to the tail. Originally a marine species, the striper has adapted very well, and is a freshwater species of the larger lakes and their tributary rivers. LIFE HISTORY: Female stripers produce millions of eggs (up to 5 million) which are semi-bouyant and require a moving unobstructed river during their incubation period. In Virginia the fish are taken on their spawning run up the Staunton River, spawned, fertilized and hatched at the Game Commission's

facility at Brookneal. The tiny fry are later released into several Virginia lakes. ANGLING VALUE: These are huge fish by freshwater standards — the Virginia record is 39 pounds, 8 ounces.

CHAIN PICKEREL *(Esox niger)* DESCRIPTION: A long streamlined fish, green tinged with gold which becomes lighter on the lower part of the body. The chainlike network of marking on the sides accounts for the name. LIFE HISTORY: Spawns in the late winter or early spring. The young ideally grow up in grassy lakes and the quiet areas of many Virginia streams. ANGLING VALUE: The chain pickerel is a greedy fellow who will smack a lure even though the bait was meant to entice a largemouth bass. On small streams, such as the upper Chickahominy, pickerel can provide exciting action and a break from catching small sunfish.

NORTHERN PIKE *(Exox lucius)* DESCRIPTION: Usually a long slender fish with well developed, large, sharp, pointed teeth. Color is dark green on top — shading through lighter green to white on the belly. There are short, light barlike spots on the body and some dark spots on the fins. LIFE HISTORY: An early spawner, activities take place during daylight hours, usually in the early afternoon. Weedy shallow flats provide vegetation and the slightly-heavier-than-water and adhesive eggs stick to the vegetation for the incubation period. Producing 10,000 to 15,000 eggs per pound of body weight, neither the female or the male provide any care for the eggs or the young fish. ANGLING VALUE: This fast growing fish is a voracious hard hitting game fish. Striking a wide variety of lures, the wise angler uses a wire leader since that toothy mouth can easily cut monofilament.

MUSKELLUNGE *(Esox masquinongy)* DESCRIPTION: A recent import to Virginia, the angler should have little trouble identifying the musky because of their rather narrow distribution and large size. LIFE HISTORY: Currently there is a musky fishery in Northern Virginia at Burke Lake. Fish are netted here and eggs transferred to the Buller Hatchery. Fry are then planted in suitable waters. A good fishery is currently growing up in Rural Retreat Lake. ANGLING VALUE: Tops as a sport fish, the musky has the potential of growing into a huge lure-smashing monster. Already the Virginia record is 34 pounds, 11 ounces.

WHITE PERCH *(Morone interrupta)* DESCRIPTION: A dark green back, silvery or light olive sides. Has a deeply notched dorsal fin and a small mouth. Darker colors are common to landlocked fish. ANGLING VALUE: Can reach a size of about 15 inches and weigh to 3 pounds. They are often rated as an excellent game and food fish.

WALLEYE *(Stizostedion vitreum)* DESCRIPTION: A greenish-brown fish with a long slender body. The walleye has strong canine teeth and the upper jaw extends beneath the hind margin of the eye. The eyes are large. LIFE HISTORY: Walleye can spawn in early March and females will produce from 25,000 to 50,000 eggs per pound of body weight. ANGLING VALUE: Walleyes tend to congregate near the bottom of lakes, on sand bars or near ledges and dropoffs. They are slow and methodical feeders, so fishing techniques should be slow. The fish are also photonegative (shunning sunlight) so night fishing in shallow water should not be overlooked. Bait should be trolled or jigged slowly or allowed to remain stationary for some time. Deep running lures as well as live minnows will do the job.

BROOK TROUT *(Salvelinus fontinalis)* DESCRIPTION: The little native trout of the eastern U. S. is easily known by his almost brilliant coloring — brilliant but not gaudy greenish-brown interrupted on the top side by "worm tracks" or vermiculations and on the sides by pale spots. Its white-edged fins, reddish lower fins and square tail are identifying characteristics. LIFE HISTORY: A fish of cold clear water, its breeding habits vary. Brookies go upstream to shallow water to spawn, but will go to shallower portions of lakes and in some cases in the northeast, out to sea. ANGLING VALUE: While feeding on insects, the brookie is fair game for the fly fisherman who chooses a fly resembling natural food. That is not to say he will not take bait because the brookie will certainly do that. While many brook trout streams lack the necessary food to produce large fish, the Virginia record is 5 pounds, 2 ounces.

BROWN TROUT *(Salmo trutta)* DESCRIPTION: Color can vary considerably but the red spots in the sides surrounded by light rings are the key. LIFE HISTORY: The brown and Loch Leven, both natives of Europe, were introduced long ago into North America. They were crossbred by fish culturists until a clear strain of either has almost completely vanished. ANGLING VALUE: The brown can inhabit waters warmer than the brook trout and has proven very adaptable. He is a cunning adversary for the angler, especially as they become larger fish. The Virginia record for brown trout is 14 pounds, 6 ounces. Fish of this general size have been caught in the Smith River below the dam at Philpott Reservoir.

RAINBOW TROUT *(Salmo gairdneri)* DESCRIPTION: One of the most colorful and most common of the fishes in the higher streams and cooler lakes, the rainbow is so well known that it needs no description. LIFE HISTORY: In Virginia there is a considerable trout raising program from which over a million trout a year are planted in lakes and streams. The rainbows are hatched in the fall at the Game Commission's facility at Marion. Some of the fry are raised there and others journey to Coursey Springs to be cared for until they are large enough to plant in the state's streams. ANGLING VALUE: In most areas the rainbow is a real "glamour fish." Whether caught for the angling thrill, or for the table, the rainbow is superb. Not as choosy as "wild" fish, the hatchery raised version will probably come easier to a hook baited with cheese or corn, but the traditional angler with his fly fishing gear isn't disappointed either.

Personalities

Edited by F. N. Satterlee

MAJOR R. STUART PURKS Assistant Chief, Law Enforcement

Approximately 12 miles east of Fredericksburg, Virginia in the County of King George there is a place known as Igo and that is where "Stu" Purks first saw the light of day. His father was a farmer who also operated (for 58 years) a general store and for 55 of those years he was also Postmaster. In this environment young Stuart grew to manhood influenced by his farm chores, work in the store and enjoying the outdoors.

His early schooling was in a two-room building to which he walked nearly two miles. Later he attended and graduated from King George High School. He enjoyed baseball, a game in which pitched lefthanded, played first base and accumulated the obvious title of "Lefty." His ability as a baseball player earned him a scholarship at Fork Union Military Academy.

For a time he worked for the State Highway Department. Learning of an opening at the Game Commission, he transferred to that organization in February of 1938 and was assigned as warden for King George and Stafford counties. In October of 1955 Stu was appointed as Supervisor for the George Washington District of the Law Enforcement Division and in June 1962 became Acting Chief of that Division until the arrival of John McLaughlin in October of that year. Two months later he officially became the Assistant Chief of the Law Enforcement Division.

One of his hobbies is cooking, and his reputation with fish chowder and roasting peanuts is well known to outdoorsmen throughout the state. And it is with his continuing association with the sportsmen and women of the state, working outdoors and striving to enable the generations "coming on" to enjoy wildlife and the outdoor world that gives him a great sense of satisfaction in his work with the Commission.

Stu is married to the former Alma Kendall from Fredericksburg, Virginia and they make their home in that location.

ELK GARDEN FIELD

By A. M. DECKER

Elk Garden Field, lying in the saddle between Virginia's two highest peaks, Rogers and Whitetop, is higher than all but a few of the state's mountains. In Smyth and Grayson counties, it has elevations of from 4200 to 4600 feet. Virginia Route 600 crosses at its western edge, while the Appalachian Trail and Virginia Highlands Horsetrail follow opposite sides of a ridge to cross the open area from west to east. Elk Garden was originally forested. After clear-cutting it was burned and grazed. The grazing, with occasional burning while in private ownership, kept it open. It is now owned by the United States, as part of Mount Rogers National Recreation Area in Jefferson National Forest. Due to the elevation the field is warm in summer, but never hot. The view northward extends to West Virginia, and deep into North Carolina to the south. East and west rise the dark cool spruce forests on Mount Rogers and Whitetop.

There is a steady succession of flowers through the season. Flame azalea (opposite page), blooms in June; while the Mayapple's (above left) large white flower, blooming late at this elevation, nods under its twin umbrella-like leaves. Patches of hay-scented fern dot the field, especially around the outcroppings of rhyolite rock. Handsome cinnamon fern (above) and fancyfern favor the moister areas of the southwest corner. Among the piles of rock and scattered buckeye trees, chipmunks and woodchucks seek shelter. (left)

Let's Make Candied Violets

By MARJORIE LATHAM MASSELIN

The last time I looked at commercial candied violets, I put the box right back on the shelf and determined that as soon as the violets bloomed I would manufacture a lifetime supply. They are blooming now in my garden and I have just left a tray full of candied blossoms drying in a sunny window.

Before you get started you should be sure you have a good place to keep candied violets. You cannot just tuck them away in a jar or box, as they will gather mold in humid summer weather. The best place to store them is in a freezer. Pack them in a large box, sturdy enough not to be crushed when you drop a frozen roast on it. Pack them between layers of waxed paper with a cushion between.

Besides looking so elegant, violets are actually good for you. The violet is Nature's own vitamin pill. In times past, children were given a spoonful of violet syrup instead of a vitamin pill.

To prepare the violet flowers for candying, they should be gathered early in the morning as soon as the sun has evaporated the last semblance of dew. Select only blossoms which are perfectly fresh, new and healthy looking. Pick only a few at a time, so that they remain fresh and unwilted. Once the petals get limp and fold up, it is very difficult to get them evenly sugared.

I do not wash the violet petals before sugaring them, because if you wash them, you must also dry them. If you dry them manually, you will bruise the delicate petals. If you let them dry unaided on a paper towel, they will be wilted by the time the water is all absorbed in the towel.

I leave the stem intact until I am through handling the blossom. Sometimes a tiny area gets missed during the first sugaring and it is necessary to go back and touch up the bare spots with an artist's brush dipped in the egg white and then to dust on a little more sugar. Since the stem works as a natural handle, it seems easier to use it than to fool around with tweezers.

Aside from the violets, the only other ingredients you will need will be one egg white, unbeaten, and a half cup of ordinary granulated sugar. Put the egg white in a custard cup so that it is deep enough to submerge each blossom, and put the sugar in another custard cup, again so that it is deep enough to bury each blossom. For tools, you very likely will need the artist's brush already mentioned, and I use a palette knife, although a small spatula would probably work well enough.

Now, grasp a violet by its stem and dunk it into the egg white, twirling it a bit to get it evenly coated. Lift it out; give it a smart little shake, and look to see that the petals are not stuck together. If they are, shake to loosen them and if they still stick, use the palette knife to separate them. Be gentle so that the petals are not bruised.

Photo by Ancarrow

The next step is to place the violet, face downward, into the sugar and then with the palette knife shovel sugar onto the back of the blossom. Press down gently to encourage the sugar to adhere to the petals, then lift it up and use the knife blade under the flower to set it face up on a paper towel on a cake rack. Continue in this manner until you run out of either violets or stamina. Then set the tray to dry in a sunny window.

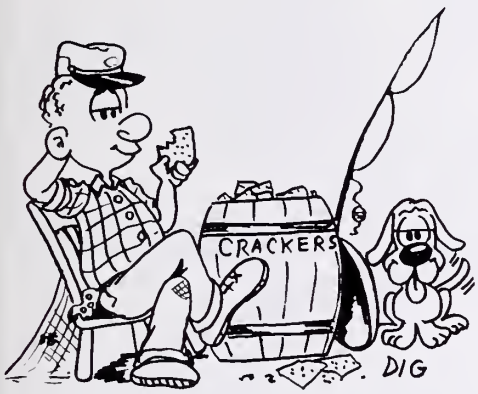
In an hour or so, after the sugar has had time to stiffen enough that a blossom remains rigid when picked up, you can go back over the lot of them and do any touching up that is necessary. The blossoms must be completely covered or they will not keep. They also will not keep unless they are totally dry before you pack them away. Two days in warm air and sunshine is not too long to let them dry. Turn them once, using fresh paper towels, so that both sides have exposure to the sun.

Another delicious concoction you can create with violets is violet jam. To make violet jam you will want to wash the violets. You will need a fairly vast quantity because you must discard everything except the petals which you pull off with tweezers. You will need one full cup of petals, solidly packed. Put them in the blender with 2/3-cup of sugar and a few drops of freshly squeezed lemon juice. Whisk a minute or so until they are liquified. Pour this liquid into a saucepan and simmer until it coats the spoon. Pour into tiny sterilized jars and seal with paraffin. Cover snugly and store in a dark, dry place to bring out on gray, winter days when you need a breath of springtime.

IT APPEARS TO ME...

A Conglomeration of Comments, Cumshaw and Cogitation

BY CURLY



. . . A PERSON OUGHT TO HAVE ONE!

I have just learned of a unique *free* service which has become available to persons in the (703) AREA CODE or, for the price of a long distance call, to anyone. Fairfax County Extension Service (part of VPI & SU) has initiated DIAL-A-TAPE which has available some 60, approximately two-minute-long tapes on subjects ranging from Food Preservation and Horticulture to Home Furnishing or what to do about 'hornets in your hot-house.' The service is available from 8 A.M. to 4:30 P.M. Monday through Friday by calling (703) 691-3240 and then asking to hear the tape of your choice. The catch is knowing what tapes are available (more are being added all the time) so drop a line for a free brochure listing the choices. Address your request to: Fairfax County Extension Office, (Dept. S) 3945 Chain Bridge Road, Fairfax, Va. 22030.

The folks out in Region III of the United States Environmental Protection Agency in Philadelphia have on hand an extensive list of (you guessed it) FREE publications. In the general category there are such things as Gas Mileage Guides, Common Environmental Terms and How To Plan an Environmental Conference, while in the Children's Publications you can obtain the intriguing There Lived a Wicked Dragon or President's Environment Merit Awards Program just to mention a couple. Currently there are a dozen publications which deal with pesticides, thirty on water and fourteen dealing with the problems of clean air and in all there are 10 different categories.

To obtain a copy of the current environmental publications listing write to Office of Congressional and Public Affairs, U. S. Environmental Protection Agency, 6th and Walnut Streets, Philadelphia, Pennsylvania 19106.

. . . FOR YOUR BOOK SHELF

It was bound to come sooner or later and, arriving as it has, NOW. . . the timing could not have been better. STILL ROOM COOKERY is a magic mixture of the nearly lost art of fermenting food to preserve (and flavor it beyond your wildest dreams) combined and garnished with both conventional and *Metric* measurements.

This is, at least as far as I know, the first cookbook to combine all these good things under one cover. It is a delightful deluge of deviations from the hum-drum into the wonderful world of old-time cookery at its best. Grace Firth wrote Stillroom Cookery and you can get this charming change for $9.95 from EPM Publications, Inc. (Drawer C) McLean, Va. 22101.

With spring, warmer weather and hopefully lower fuel bills just around the corner and with the angle worms nervously anticipating the Robins' return I 'calate' it is time to consider our garden. Now Seed Cataloges are fine and don't for a moment feel that I advocate their being abandoned. However the National Wildlife Federation has published a book which will enable you lovers of wildlife to combine that emotion with the practical side of gardening.

GARDENING WITH WILDLIFE is 190 pages of "how to do it" liberally sprinkled with attractive photographs, drawings and details which should be added to even the most complete library. Available from the National Wildlife Federation, 1412 16th, N. W. Washington, D. C. The price is $12.95 plus 85 cents for postage and handling. Request item No. CK 19705.

AND THEN. . .

For all of you campers and hikers a reminder about the organization that, if you are not, you should become acquainted with. It is the National Campers and Hikers Association (NCHA). Headquartered in Buffalo, New York (yes there is still a Buffalo in spite of all the snow this winter) the NCHA was established in 1954. By making contact with that organization either by calling (716) 634-5433 or by writing them at the address listed below, a world (literally) of information becomes available to you. The fine folks there will put you in contact with an on-the-spot information source at most anywhere in the U. S. and even overseas. The more than fifty thousand families that currently belong to this outfit can't all be wrong. Try it out at the phone listed above or NCHA, 7172 Transit Road, Buffalo, N. Y. 14221.

Growing Up Outdoors

Edited by Gail Hackman

IT'S A BIRD, IT'S A PLANE

"It's a bat!" cried Steve, pointing up toward the walnut tree.

"Oh, come on, Steve, bats don't look like that," answered his sister Brenda.

"Well, it sure wasn't a bird, Brenda, so what was it?" asked the boy.

"Tell you what, Steve. Let's go ask Grandpa Hooty about it," suggested Brenda. "He'll know what it is."

"Good idea, Bren," said Steve, and the two ran off down the path through the field at the back of their house. In a short while they arrived at Grandpa Hooty's little home.

Grandpa Hooty had lived in the little ivy-covered house as long as they could remember. Old and gnarled, Grandpa Hooty was like an old tree, always there and always comfortable to be around. Plus, he knew just about everything there was to know about the outdoors.

"Hello there, Grandpa!" called Steve, as they neared the house. The old man came to the door and smiled when he saw the pair.

"Come on up on the porch here, you two, and tell me what you've been doing all day."

Steve and Brenda climbed onto the porch steps, sat down, and told Grandpa Hooty what they had seen. When Steve got to the part about the "bat" Grandpa Hooty just chuckled.

"Well now, you two, why don't you let me tell you all about your "bat."

"In this state of Virginia," Grandpa Hooty told them, "there are two kinds of what we call 'flying squirrels.' There is the southern flying squirrel, which you can see most any time you are looking after squirrels, and then there is the northern flying squirrel, which you won't see very often at all.

What you thought was a bat, was probably a flying squirrel. These little squirrels are gentle and sociable creatures. They hardly ever bite, except in self defense. They are real easy to get along with, and some people think they make nice pets. Of course, you both know that this is against the law. See, the people who work with wildlife realize that wild animals belong where they are — not in somebody's house.

The flying squirrel doesn't really fly, although he's been trying his darndest to do so for a long, long time. He's really more of a glider. Oh, he may drop straight down for a few feet, and then the extra skin between his feet balloon upward like a parachute and pillow the landing, but he doesn't actually fly.

What you would call the wings are really just extra skin, extending from its wrists to its ankles. To boot, its tail acts like a rudder, and serves as an airbrake during landing.

Now, the reason you saw it here at dusk, is because the flying squirrel operates mostly at night, and sleeps

most of the day, like the owls. It's hardly ever seen on the ground, and prefers to stay in trees, at least six feet or so up. Flying squirrels like to eat insects, seeds, berries, nuts and buds. And of course all these foods, they can find without ever coming out of the trees.

They're just little fellows too; heck you can hold a full-grown one in your hand."

Grandpa Hooty stopped talking and looked up at the darkening sky. "Hey you two," he said. "It's getting on toward night. Maybe you'd better run on home before your mom gets worried about you."

Steve and Brenda nodded, and got up to say goodbye.

"So long now, and come back soon," Grandpa Hooty smiled. "And on your way home, watch out for the 'bats."

Once At Daybreak

By CARSTEN AHRENS

Every morning and evening ten-year-old Mark Howe watered the 20 Angus steers in the back pasture. He rode his bike up the mile-long lane to the windmill that pumped water for the animals if any kind of breeze was blowing. If it was calm, Mark manned the pump, watered the steers, and left the big trough full to the brim.

On each trip, Mark stopped at the one turn in the lane. Here a spring of cool water made a tiny jungle among the well-tilled fields. Something interesting always seemed to be going on around the spring with its tangle of wild roses, wild grapevines, and hazelnut shrubs. Just now there was the neat nest of a pair of yellow warblers. Three of the smallest of blue eggs lay in its wellpadded cup. Mark thought it looked more like a jewel case than a nest.

Each time Mark rode up he would see the male bird on the spur of an old dead walnut tree that rose above the rose thicket. The bird would be singing his merry, bubbling song to his mate out of sight in the leaf-hidden nest below. Mark supposed that was his way of telling her that everything was OK.

But this morning Mark was surprised to find both birds screaming. A big black feather still floated in the air—it didn't come from a yellow warbler! Mark jumped from his bike and started for the nest. Just before he reached the thicket, a female cowbird, a brownish bird much larger than the warblers flew heavily past him. Instantly both warblers went screaming after her, pulling out more dark feathers. Soon they came wearily back and sat making indignant "chic" calls. Mark looked in the nest; there was a big spotted egg lying among the dainty ones.

Mark rode on. He knew this was bad for the warblers. The young cowbird that hatched from the big egg would always have its mouth open for food; it would hold its open beak highest in the air. Mark knew the parent birds would poke the food they found into its mouth and their own young would starve.

It seemed to Mark that sometimes instinct told birds to do the wrong thing. He wondered if he should take the egg from the nest. He would have to ask his father.

A brisk wind quickly helped the windmill and Mark to water the steers. When he rode down the lane, he thought he would find two sad birds. Instead, there was more confusion at the thicket. He could see a large, dark bird perched on the dead spur. Both warblers were screaming, attacking, flying in to peck at the big bird. Now Mark could see it was a purple grackle, its iridescent neck feathers gleamed in the light from the rising sun.

But before Mark could ride to the bend in the lane, the big bird dropped from the spur and disappeared into the rose thicket. The noise of Mark's brakes and the sound of his skidding surprised the grackle and he peered out. He held something in his beak. Then, seeing Mark, he flew rapidly away, followed in angry pursuit by the little warblers.

Mark watched them go and he was still sitting there when they came back. They perched listlessly for a while and then both flew into the thicket. Then to Mark's surprise, the male warbler was suddenly on the old spur again, singing with bubbling enthusiasm.

Mark looked inside. The three tiny blue eggs were unharmed, and the mother bird, though still panting, was making her way toward the nest. And somewhere over the woodlot, the purple grackle was flying with the cowbird's egg in its beak.

On The Waterfront

Edited by Jim Kerrick

"Pontooning" In Luxury

Pontoon boats aren't just two pontoons with a platform anymore (although you can still buy them this way.

The standard equipment listing for pontoon boats today is lengthy and the optional equipment available is considerable. If you want an economical pontoon boat for use at a lake, you can get a platform pontoon, then add a diving board and ladder for use in a swimming area.

Add a railing for safety while cruising or fishing around a lake. Then add a vinyl canopy and a captain's chair for comfort. Marine carpeting is standard equipment on most pontoon boats. And take your choice of an inboard motor or inboard/outboard power on your pontoon.

Pontoon manufacturers also offer deck bumpers as standard equipment for greater docking protection.

How about options? One manufacturer offers a stern table on its outboard models which looks like a section of the safety railing until it's in position as a table, handy for a quick lunch or for playing cards.

You also can get dinette seating, deluxe captain's chairs that swivel and tilt backwards, built-in bar, a hard top canopy or a charcoal grill that attaches to the railing. Or how about a camper enclosure for those autumn boating trips or for use during hunting?

Or how about a 48-quart cooler with upholstered seat cover, stereo tape deck with two or four speakers, or an 8-track AM/FM stereo system, running lights, helm console with mechanical steering, electric anchor lift and a variety of padded passenger seating arrangements?

If you want even more luxury, several manufacturers have pontoon boats that include the following as standard equipment: three-burner stove, sink and wet bar, ice chest, deluxe helm console, upholstered captain's swivel chair, cushioned vinyl seating with pull-out davenos that sleep four.

These are just a few items of equipment available on pontoon boats. And many of the pontoon boats are trailerable too, so you don't have to leave comfort behind when you "rough it." See your pontoon dealer soon.

BUY A PONTOON BOAT!

Here are some reasons for buying a pontoon boat:

More Deck Area
More usable deck space for the money than any other type of boat.

Safety
Positive flotation of pontoons-great stability. Guard rails open in for even more safety afloat.

Greater Carrying Capacity
Room for more people aboard without overloading.

Ease Of Operation
Can be operated by young or elderly people safely.

Comfortable Seating
The ample deck area permits lounges and deep upholstery furniture. Manufacturer options allow you a host of choices.

Perfect For Fishing
Troll, spin cast, fly cast or still fish in comfort (with refreshments on deck.) Shallow draft lets you "fish the flats."

Water Skiing
All the speed you need for this exciting sport.

Entertaining Aboard
The large deck area makes room for more guests. From bridge parties to weddings, you have the room--youngsters would like a swimming birthday party.

Economy
The first cost is lower and the maintenance easier than for any conventional boat of equal deck area.

Cruising Leisurely
Probably the greatest pleasure with a pontoon boat is a leisurely trip "around the lake" or along the shoreline with friends.

Speed, comfort, luxury and easy operation all combine to make the pontoon pleasure boat a worthwhile investment. Photo Courtesy, Riviera Cruiser Division, LML Corporation

The Way It Was

By RICHARD KEVORKIAN

Cutting down the honeysuckle and briars from the riverfront left me with a rare feeling of accomplishment. That evening, after exchanging a few words with the area Game Warden, I cleared what remained of the underbrush and walked to the cottage for a solitary meal.

I had remembered to bring my tackle box and rods; however, after filling four reels with lines of different weights, I had placed them aside and without realizing, left them behind. Hastily buying a new reel in Martinsburg, I spent part of the evening spooling on some new 2-pound monofiliment line and rechecked the equipment I intended to use the next afternoon.

Later that evening, the sky was cast with stars and the green was damp and cool. I sat on the porch for several hours listening to Radio W.O.D.Y. and finishing the last of the pot of coffee. As I turned in, I prided myself on coming to the Smith River the day before open trout season so I could get a ringside seat at the spectacle which was about to begin. All night cars were moving back and forth on the small road getting into position for the coming event.

After breakfast the next morning, I finished my dishes by 10 o' clock, sipped coffee, and watched as the riverside began to come alive with fishermen coming from as far as West Virginia and Pennsylvania.

At quarter to 12, I casually slipped on my hip boots and with a lofty attitude wandered down the hill. I wasn't prepared to believe that I had anything to do with these opening day troutfishers. The grand literary fishing tradition made no mention of opening days. Hewitt, Gordon, and LaBranche gave no presence of these participants. It was all confusion, motley colors, cans of worms, and sweet corn. Those things were the making of this day.

By the time I crossed the road near the river, I didn't see a single spot uncovered by rubber boots. People were everywhere; nets and lunch bags, bottles of Coke, and stringers hanging loosely from their sides.

It's no good, I murmured, it's not my kind of sport. I laid down my fishing vest, rested my rod on it, and sat down. The tension was terrific; and, hoping to lose my way into a conversation, I announced that we only had a few moments left before noon. I look around for some response. Not only was there none, but no one even acknowledged my presence.

At noon, the urgent honking of a car horn announced the beginning of the season and the air was shattered with rods of every description flying in all directions. It was my time to be amused and I watched with fascination the spectacle of crossed lines, seemingly endless corn, worms, and salmon eggs making their arched entries into already disturbed water.

A little later, I put on a small spinner, casting with clock-like regularity. I wasn't getting strikes; however, out of the corner of my eye I noticed one fisherman beginning to fill his stringer with good-sized browns and rainbows. I casually walked over and properly admired his most recent catch and with all the nonchalance I could muster asked what kind of lure he was using. His wife, sitting on the bank, smiled and softly offered that she didn't know, but that he caught his limit within an hour on opening days.

He shouted up the hill that he had his limit and was using a Number 0 brass spinner with a brown body. In a few moments, I was back to my box frantically searching for the lure. I didn't have one. Total disaster had nothing close to looking like it. The only thing left

(Continued on page 16)

A
B
C
D
E
FIRE
PINK

WORLD OF WILDFLOWERS

By NEWTON ANCARROW

The Fire Pink is an early spring flower appearing around the second week in March and lasting until the third week in April depending on the weather and altitude. Its habitat is rich open woods and roadsides on rocky slopes and hillsides.

The beautiful flowers of the Fire Pink are about 2 inches across and are very eye catching in the early spring before there is much obscuring foliage. The flowers appear singly or in very loose cymes (flatish terminal groups with the central flowers usually blooming first) of up to 11 blooms and up to 12 inches from the ground (A).

The basal leaves are spatulate and about 4 inches long (A & B). The cauline or leaf groupings (those on the stem) have no stalk, and are about 2½ inches long and occur in 2 to 6 pairs (A & C).

The flowers, including the fruiting calyx, are about 1 inch long on stems about 1 inch long (D). The hairs which cover the plant are sticky and in time collect all manner of things such as seeds from other plants, dirt, even small insects (A,D,E).

Inside the flower tube can be seen the 10 stamens, and the three styles originating from the tip of the overy and which barely exceed the flower tube (E). Also at (E) if we observe very carefully we can see one of the characteristics of the Pink Family. The seeds are attached to the central column of the overy and this central column is attached to the base of the overy and not at the top (E).

The root system of the Fire Pink is substantial for the size of the plant and extends for considerable distance (F). It has many old stem scars from previous years. There are large roots running off from the plant for surprising distances.

The Fire Pink may be propagated by seeds sewn in early spring or by root division in late summer.

F

THIS NEW THREE-DIMENSIONAL TROPHY FISH CITATION COULD BE YOURS!

THE NEW-STYLE AWARDS ARE NOW AVAILABLE FOR ALL FISH SPECIES LISTED TO THE RIGHT.

CONTEST RULES

Fish must be caught in Virginia waters by legal methods during seasons open for the taking of the species involved.

Fish must be weighed at a public scale that is periodically inspected by the Commonwealth of Virginia.

Photographs are desirable as further proof of authenticity but are not required.

Non-residents as well as residents are eligible for citations if fish are caught under the above conditions.

Applications must be submitted within 60 days of the catch to be eligible.

Record fish must be verified by an employee of the Commission of Game and Inland Fisheries.

HOW TO MEASURE LENGTH

1977-1978 CITATION SIZES

Largemouth Bass	8 lbs	Striped Bass	15 lbs.	Other Trout	5 lbs.
Smallmouth Bass	4 lbs	Pickerel	4 lbs.	Muskellunge	6 lbs.
Kentucky Bass	3 lbs.	Walleye	8 lbs.	Northern Pike	6 lbs
Sunfish	1 lb.	Yellow Perch	1 lb	Channel Cat	10 lbs
Rock Bass	1 lb.	Brook or Brown Trout	2 lbs.	Flathead Cat	20 lbs
White Bass	2 lbs.	Coho Salmon	3 lbs.	Carp	20 lbs
White Perch	1 lb.	Sauger	3 lbs	Gar	10 lbs
Crappie	2½ lbs			Grindle	10 lbs

APPLICATION FOR VIRGINIA FRESHWATER FISH CITATION

Angler's Name (PRINT) _____

Address _____

City _____ State _____ Zip _____

Kind of fish _____ Weight ____ lbs. ____ oz.; Length _____ inches

Where caught _____ Date Caught _____

Weighed at _____ (store or other public scales)

Weighing witnessed by _____ Signature _____ Address

How caught – Fly Rod ☐ Spinning Rod ☐ Casting Rod ☐

Trot Line ☐ Other _____

COMMISSION OF GAME AND INLAND FISHERIES
P.O. BOX 11104, RICHMOND, VIRGINIA 23230